

## CLAIMS

1. A system for location-sensitive reproduction of audio signals comprising

- at least one electroacoustic transducer (7) for the reproduction of audio signals,

- at least one location-sensitive detection device (3) for detecting the position of at least one object (1) for which a reproduction of audio signals is intended, and

- a central unit (5) for calculating and controlling the audio signal output of each individual transducer (7) for the optimum reproduction of the audio signals at the position of the object (1), which is detected by the location-sensitive detection device (3).

2. A system as set forth in claim 1 wherein the central unit (5) is adapted to effect detection and control in real time.

3. A system as set forth in claim 1 or claim 2 wherein the system has at least one housing which respectively contains an electroacoustic transducer (7) and a location-sensitive detection device (3).

4. A system as set forth in one of the preceding claims wherein the electroacoustic transducers (7) are adapted to record audio signals (10), and the central unit (5) is adapted to correlate the signals recorded by the electroacoustic transducers and the items of position information from the location-sensitive detection devices (3) in order to select that signal recorded by an electroacoustic transducer, which is best suited for recognition of the audio signals.

5. A system as set forth in claim 4 wherein

- the central unit (5) selects that signal recorded by a microphone (2a), which has the greatest signal/noise ratio.

6. A system as set forth in claim 4 or claim 5 wherein

- the microphones (2) and the location-sensitive detection devices (3) are arranged spatially distributed.

7. A system as set forth in one of claims 4 through 6 further comprising

- a signal addition device for adding or subtracting the signals recorded by the other microphones (2) in dependence on the position of the respective microphones (2) and the transit times of the signals recorded by the respective microphones (2).